

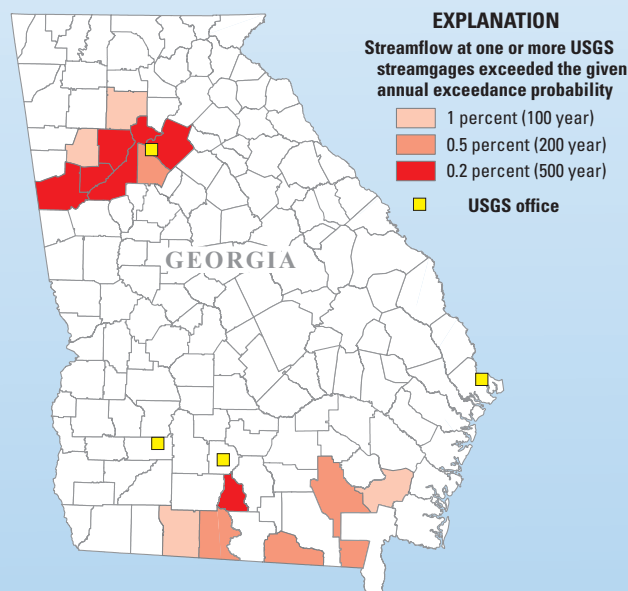
Epic Flooding in Georgia, 2009

Metropolitan Atlanta—September 2009 Floods

- The epic floods experienced in the Atlanta area in September 2009 were extremely rare. Eighteen streamgages in the Metropolitan Atlanta area had flood magnitudes much greater than the estimated 0.2-percent (500-year) annual exceedance probability.
- The Federal Emergency Management Agency (FEMA) reported that 23 counties in Georgia were declared disaster areas due to this flood and that 16,981 homes and 3,482 businesses were affected by floodwaters. Ten lives were lost in the flood. The total estimated damages exceed \$193 million (H.E. Longenecker, Federal Emergency Management Agency, written commun., November 2009).
- On Sweetwater Creek near Austell, Ga., just north of Interstate 20, the peak stage was more than 6 feet higher than the estimated peak stage of the 0.2-percent (500-year) flood. Flood magnitudes in Cobb County on Sweetwater, Butler, and Powder Springs Creeks greatly exceeded the estimated 0.2-percent (500-year) floods for these streams.
- In Douglas County, the Dog River at Ga. Highway 5 near Fairplay had a peak stage nearly 20 feet higher than the estimated peak stage of the 0.2-percent (500-year) flood.
- On the Chattahoochee River, the U.S. Geological Survey (USGS) gage at Vinings reached the highest level recorded in the past 81 years. Gwinnett, De Kalb, Fulton, and Rockdale Counties also had record flooding.



Measuring Sweetwater Creek floodflow over Interstate 20 near Atlanta, Georgia. Photo by Alan M. Cressler, USGS.



South Georgia March and April 2009 Floods

- The March and April 2009 floods in South Georgia were smaller in magnitude than the September floods but still caused significant damage.
- No lives were lost in this flood. Approximately \$60 million in public infrastructure damage occurred to roads, culverts, bridges and a water treatment facility (Joseph T. McKinney, Federal Emergency Management Agency, written commun., July 2009).
- Flow at the Satilla River near Waycross, exceeded the 0.5-percent (200-year) flood. Flows at seven other stations in South Georgia exceeded the 1-percent (100-year) flood.

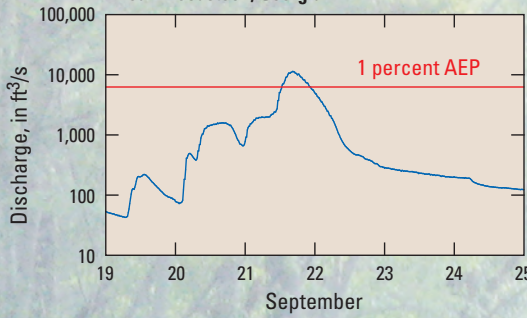


Altamaha Regional Park, Glynn County, Georgia, April 14, 2009. The water is 3 feet deep. Photo by Alan M. Cressler, USGS.

USGS Role During the Floods

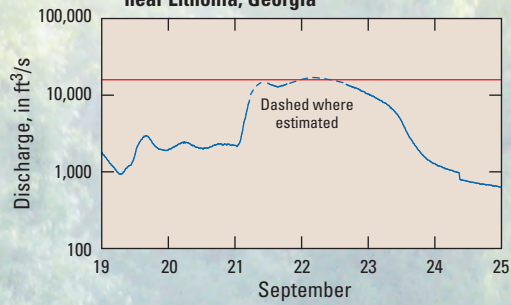
- One of the primary missions of the USGS is the measurement and documentation of the magnitude and extent of hydrologic hazards, such as floods, droughts, and hurricane storm surge.
- In Georgia, the USGS maintains a network of more than 300 streamgages that provide data in real time via the Internet. Data from these streamgages are used by local, State, and Federal officials for numerous purposes, including public safety, National Weather Service (NWS) flood forecasting, and to aid emergency management officials in making informed decisions before, during, and after flood events.
- During these two flood events, USGS personnel made more than 100 discrete flood measurements, performed extensive ongoing analysis of ratings and flood frequency, collected water-quality samples in flooded areas, and provided routing briefings to USGS Headquarters, NWS, local government officials, and the press.

**02392975 Noonday Creek at Shallowford Road,
near Woodstock, Georgia**



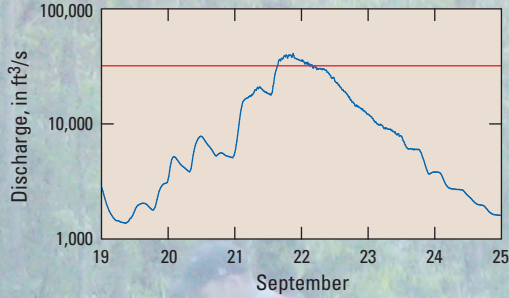
September 2009 flood magnitude exceeded the 0.2-percent (500-year) annual exceedance probability (AEP) flood.

**02207120 Yellow River at Ga. 124,
near Lithonia, Georgia**



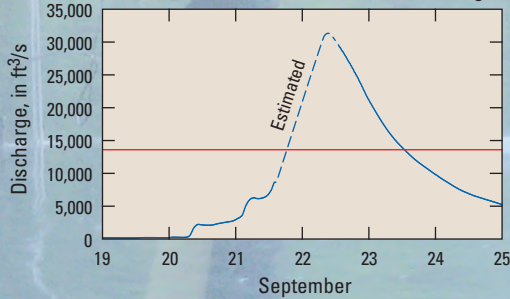
September 2009 flood magnitude is about equal to the 0.5-percent (200-year) AEP flood.

02336000 Chattahoochee River at Atlanta, Georgia



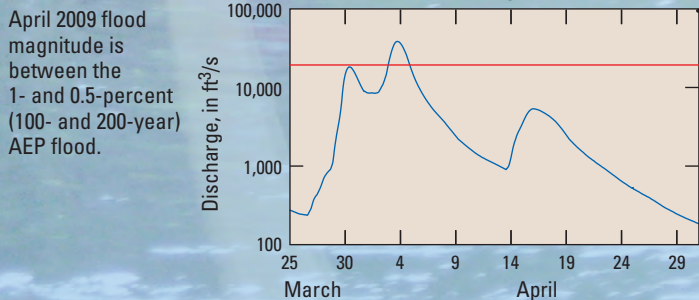
September 2009 flood magnitude is between the 1- and 0.5-percent (100- and 200-year) AEP flood.

02337000 Sweetwater Creek near Austell, Georgia



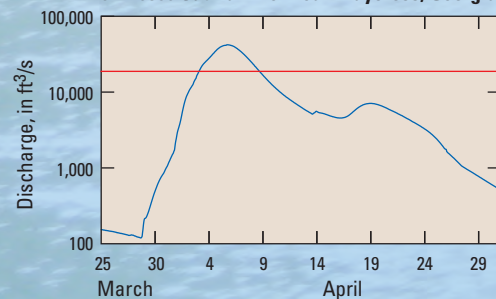
September 2009 flood magnitude greatly exceeded the 0.2-percent (500-year) AEP flood.

**02327500 Ochlockonee River
near Thomasville, Georgia**

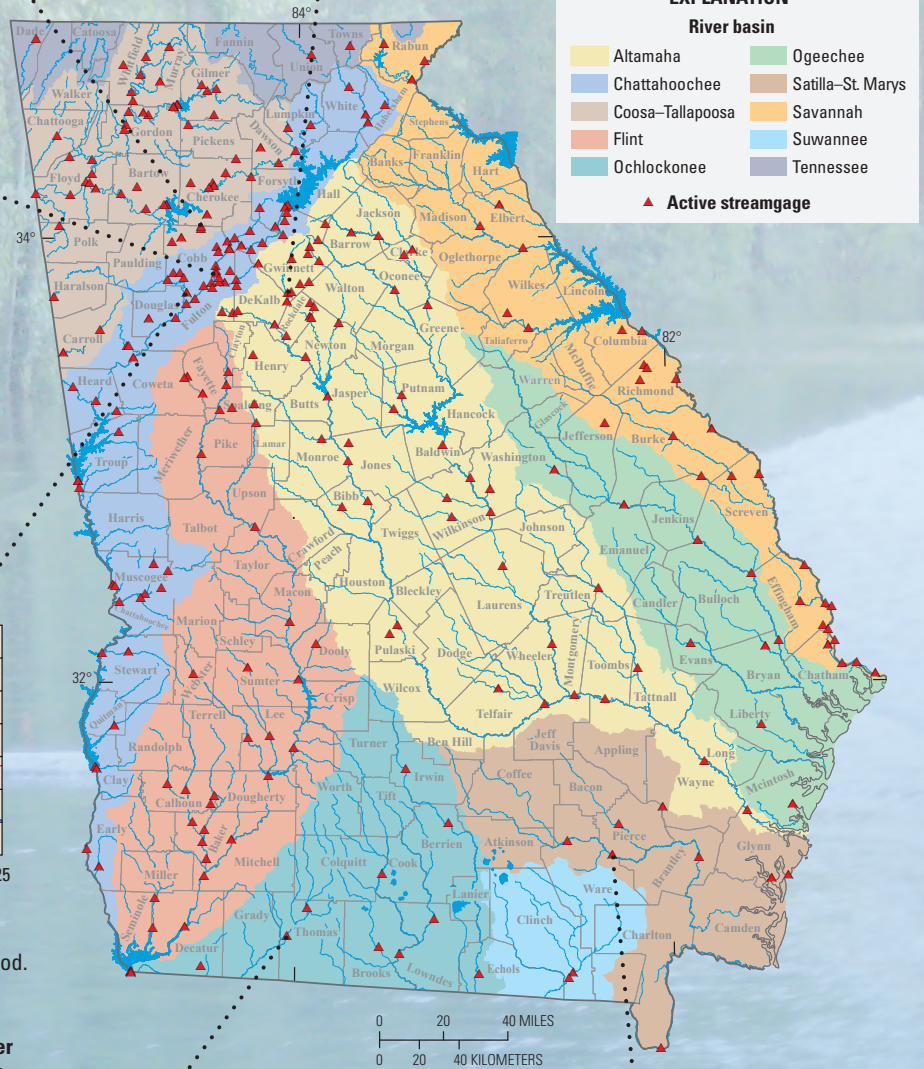


April 2009 flood magnitude is between the 1- and 0.5-percent (100- and 200-year) AEP flood.

02226500 Satilla River near Waycross, Georgia



April 2009 flood magnitude is about equal to the 0.5-percent (200-year) AEP flood.



EXPLANATION

River basin

Altamaha	Ogeechee
Chattahoochee	Satilla-St. Marys
Coosa-Tallapoosa	Savannah
Flint	Suwannee
Ochlockonee	Tennessee

▲ Active streamgage